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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,433	12/31/2001	Takeo Kuroda	M&M-048-USA-PCT	4222
7590 01/14/2004 TOWNSEND & BANTA 601 PENNSYLVANIA AVENUE, N.W. SUITE 900, SOUTH BUILDING WASHINGTON, DC 20004			EXAMINER BERMAN, SUSAN W	
			ART UNIT 1711	PAPER NUMBER

DATE MAILED: 01/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/019,433

Applicant(s)

KURODA ET AL.

Examiner

Susan W Berman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-8 and 10-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-8 and 10-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_

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### *Claim Objections*

Claims 5 and 8 are objected to because of the following informalities: In claim 5, the Markush language is incomplete. The phrase "selected from" should be changed to read "selected from the group consisting of". The phrase "type of compound" renders claim 8 indefinite because it is not clear whether the compound is required to contain a polymerizable group and have the average molecular weight set forth or to be some other compound of the same "type". It is noted that claim 10 recites a method "in sequence" but does not specify what the sequence of method steps is intended to be.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102 and/or 103*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 6-8 and 11 are rejected under 35 U.S.C. 102(e) as anticipated by Baba et al (6,355,703). Baba et al disclose compositions comprising a polyfunctional (meth)acrylic compound and a reaction product of an alkoxysilane having a polymerizable unsaturated group, a urethane bond and an

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organic group of formula (1) in the Abstract with silica particles, an acrylic resin having a carboxyl group and anon reactive solvent and coatings therefrom. The polymerizable unsaturated group containing alkoxysilane can have a polyalkylene glycol as divalent organic group "X" in formula (2). See column 7, lines 22-25, and column 8, line 8, to column 9, line 27. Photopolymerization initiators are taught in column 14, line 23, to column 15, line 6. optional monomers containing a vinyl group or a (meth)acryloyl groups are taught in columns 15-16. See Example 1. Baba et al do not mention the properties set forth in instant claims 1, 3 or 11. However, since the components of the compositions disclosed by Baba et al meet the descriptions set forth in the instant claims, the properties of the compositions before and after photocuring would be expected to fall within the limitations set forth in the instant claims.

The burden is hereby shifted to applicant to establish by effective argument and/or objective evidence that the prior art product(s) or process(es) do not necessarily possess the characteristics of the claimed products or processes. Note In re Fitzgerald, 205 USPQ 594 (CCPA 1980). The reference discloses all the limitations of the claim(s) except a property or function and the examiner cannot determine whether or not the reference inherently possesses properties or functions which anticipate the claimed invention. See MPEP 2112-2112.02. Note In re Spada, 911 F. 2d 705, 709, 15 UPQ2d 1655, 1658 (Fed. Cir. 1990), "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not". Note In re Best, 562 F. 2d775, 195 USPQ 433 (CCPA 1977). Therefore, the *prima facie* case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product.

Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujita et al (6,407,146) in view of Baba et al. Fujita et al disclose compositions comprising a vinyl polymer having at least one crosslinkable silyl group and a polyether polymer having at least one crosslinkable silyl group for

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adhering substrates. Addition of (meth)acrylate functional silane adhesion promoter is suggested, however addition of a photoinitiator are not suggested. The disclosure of Baba et al is discussed above. Baba et al teach coating substrates and do not mention bonding two substrates with the disclosed compositions.

Fujita et al discloses the claimed invention except for the addition of a compound that initiates polymerization upon activation by irradiation corresponding to component D in the composition set forth in instant claim 1. Baba et al teaches that it is known to provide a composition comprising a compound having hydrolyzable silyl group in combination with a polymerizable compound and a photoinitiator. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a composition comprising a hydrolysable silyl group-containing compound, a polymerizable compound and photoinitiator as taught by Baba et al in the method disclosed by Fujita et al. One of ordinary skill in the art at the time of the invention would have been motivated by a reasonable expectation of providing a composition useful in the method for bonding two substrates with an analogous composition comprising a hydrolyzable silyl group-containing compound and a second polymerizable compound, as taught by Fujita et al, by exposing the composition to active energy radiation in the presence of a photoinitiator, as taught by Baba et al.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. EP 0035049 discloses compositions comprising an organic polymer having at east one hydrolyzable silicon-containing groups and a photocurable substance. The photocurable substances specifically taught are (meth)acrylic monomer or oligomers (pages 2-3). Thixotropic agents may be added (page 4, line 7). Curing agents are taught, however, photoinitiators for the photocurable substances are not mentioned.

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Ono et al (5,032,636) disclose  $\alpha,\omega$ -bis(alkoxy silyl)-substituted alkane compounds as additives in synthetic resin compositions for improving properties such as flexibility, weatherability, cold resistance and mechanical strengths.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan W Berman whose telephone number is 703 308 0040. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 703 308 2462. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0661.



Susan W Berman  
Primary Examiner  
Art Unit 1711

SB

October 1, 2003